

REMARKS

The Official Action asks for the specific improvements of the subject matter of claims 18-21, 27-43, 45-54 and 86-89 and for the specific elements in the claimed subject matter that provide those improvements. Claims 18-21 and 27-42 include a buffer layer means that relaxes the stress applied between the flip-chip and the circuit board as explained, for example, at page 99, line 21 through page 100, line 2. This stress relaxation is a specific improvement over the state of the art. This stress relaxation is also disclosed and explained in the further embodiments noted below. More particularly, the improved stress relaxation is provided by the column shaped layer in dependent claims 27, 29 and 32, the stress absorption layer in dependent claim 29, and the supporting plate and resin of dependent claim 32, each of which further define the buffer layer means of claim 18.

Claims 43 and 45-54 include a buffer layer, supporting plate and resin that relax the stress applied between the flip-chip and the circuit board. This stress relaxation is a specific improvement over the state of the art.

Claims 86-89 include a metal post, a metallic frame and resin layer that relax the stress applied between the flip-chip and the circuit board. This stress relaxation is a specific improvement over the state of the art.

The Official Action asks for the page and line numbers that describe the structure claimed in means-plus-function form. The only claim with means-plus-function limitations is claim 18. This claim includes buffer layer means for providing at least one electrical contact between one external electrode pad and at least one external electrode and for absorbing and/or relaxing a stress applied to the at least external electrode to make the interconnection board free from application of the stress. This means is further defined in claims 27, 29 and 32. The means-plus-function structure claimed in claim 18 corresponds to the fourth embodiment discussed at page 99, line 14, through page 101, line 14 and shown in Figure 10 as buffer 4 (the specific structure shown in Figure 10 is the subject of claim 27). The means-plus-function structure claimed in claim 18 also corresponds to the fifth embodiment discussed at page 126, line 8, through page 128, line 19 and shown in Figure 12 as buffer 4 (the specific structure shown in Figure 12 is the subject of claim 29). The means-plus-function structure claimed in claim 18 also corresponds to the ninth embodiment discussed at page 176, line 14, through page 180, line 17 and shown in Figure 20 as buffer 4 (the specific structure shown in Figure 20 is the subject of claim 32). The means-plus-function structure claimed in claim 18 also corresponds to the embodiment shown in Figures 25Q-25U (e.g., elements 11' and 12') discussed at page 211, line 11 through page 214, line 8. The means-plus-function structure

claimed in claim 18 also corresponds to the thirteenth through seventeenth embodiments discussed at page 214, line 11, through page 240, line 14 and shown in Figures 26-31 (e.g., elements 71, 71', 71" and 71A).

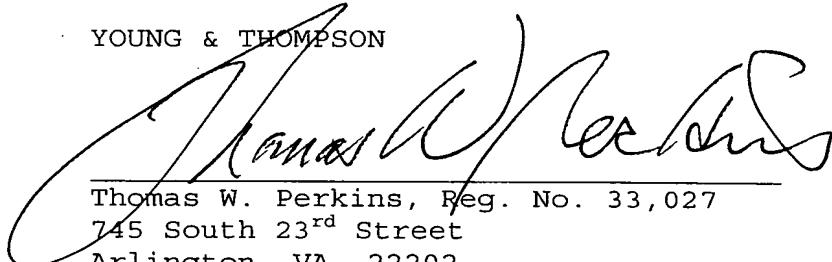
This response is believed to be completely responsive to the request for information.

In view of the foregoing remarks, it is believed that the present application is in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON



Thomas W. Perkins, Reg. No. 33,027
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

TWP/lrs